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NORTHWEST SEMITIC STRUCTURAL INFLUENCES ON ARCHAIC GREEK: A REASSESSMENT

In order to deal with the impact of non-Indo-European linguistic systems on the crystallization of the Greek linguistic system, it is necessary to distinguish between the pre-Hellenic Aegean substrate represented by linear A and the Northwest Semitic adstrate that is perhaps no less important than the substratic impact of the Aegean, especially as far as post-Mycenaean Greek is concerned. Since so little is known about the Aegean language once spoken in the region, it is preferable to focus on the Northwest Semitic structural influence on the development of Greek during the apogee of the Oriental influence on Archaic Greek civilization. Focusing on the Semitic influence on the development of Greek does not preclude the consideration that in some cases the convergence process between Archaic Greek and Phoenician within what we may call the Eastern Mediterranean *Sprachbund* relies on the same substrate constituted by the Prehellenic non-Indo-European and non-Semitic language(s) superseded by the expansion of Northwest Semitic westwards and Greek eastwards. To this Aegean language or language family belong the language represented by Linear A and probably also the Philistine language[1] and possibly even Etruscan[2].

This paper examines some features of Archaic Greek that constitute an innovation with respect to Mycenaean Greek, attributing them to the impact provoked by intense contact with Northwest Semitic languages during the period of the Dark Ages, an epoch when the influence exerted by the Phoenician world was also felt outside the language system.

My preference was to focus on structural features rather than lexical borrowing. Apart from the fact that the latter dimension has already been thoroughly

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[1] *Giovanni Garbini,* I filistei : gli antagonisti di Israele. Milan: Rusconi, 1997. P. 239, 241.

[2] *Giulio M. Facchetti,* Appunti di morfologia etrusca con un'appendice sulla questione delle affinità genetiche dell'etrusco. Florence: Leo S. Olschki, 2002. P. 147–150.

investigated[3], it is not specific to Archaic Greek, as demonstrated by the presence of Semitic-borrowed lexical items in Mycenaean. Conversely, all the structural features that we examine here appear to be post-Mycenaean innovations. These innovations can hardly be imagined as deriving from an internal development during the transition from Mycenaean to Archaic Greek, especially if we consider that some of them are restricted to Ionic or to the continuum represented by Ionic and Lesbian. As such, they appear to be conditioned by their location in a specific geographical area that constitutes the easternmost fringe of the Greek-speaking world, a region that was exposed more than any other to contact with Phoenician. Recent trends in the study of contact linguistics have stressed the importance of contact-induced diachronic changes[4].

The reassessment of the importance of contact-induced change among diachronic changes in general could contribute to finding an external explanation for some features that have not received satisfactory internal explanation.

1. Phonological influences: from the impact of a common substrate to the constitution of an Eastern Mediterranean *Sprachbund*

1.1. Vowels

So far, the attempt to reconstruct the vocalism of the pre-Hellenic substratic language has focused on qualitative alternations in Greek terms of non-Indo-European origin[5]. We would like to transcend the narrow frame of isolated words, to analyze the vocalic system as a whole and to uncover what can be considered an innovation with respect to the Indo-European legacy. The main point pertains to an unusual correlation between vowel quantity and vowel quality, the Indo-European-inherited median vowels being reinterpreted as long open vowels (η and ω), whereas their short counterparts ε and ο seem to have been realized as mid-closed[6].

In most dialects of ancient Greek, the Indo-European-inherited [ē] and [ō] were more open than their short counterparts [e] and [o]. This blatant dissymmetry between the Indo-European-inherited [ɛ:] and [ɔ:] on the one hand and

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[3] *Heinrich Lewy,* Die semitischen Fremdwörter im Griechischen. Berlin, 1895 (repr. Hildesheim-New York, 1970); *Émilia Masson,* Recherches sur les plus anciens emprunts sémitiques en grec. Paris: Klincksieck, 1967; *Cyril Aslanov,* Emprunt enthousiaste et emprunt réticent: essai de typologie de différentes attitudes devant l'emprunt lexical à travers l'exemple du grec et du japonais / Meta. Translators' Journal. 1995. Vol. 40. No. 4. P. 540–547.

[4] *Frans van Coetsem,* A General and Unified Theory of the Transmission Process in Language Contact. Heidelberg: Carl Winter Universitätsverlag, 2000.

[5] *Edzard J. Furnée,* Die wichtigsten konsonantischen Erscheinungen des Vorgriechischen. The Hague; Paris: Mouton, 1972. P. 335–385.

[6] *Michel Lejeune,* Phonétique historique du grec ancien et du mycénien. Paris: Klincksieck, 1972. P. 236–237.

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their short counterparts on the other hand is confirmed by the fact that the result of the compensatory lengthening of short [e] and [o] was the introduction of the two closed long median vowels [ē] and [ō][7]. The contrast between the inherited [ē] and [ō] and the "spurious diphthongs" ει and ου can be symbolized as follows:

[ɛ:] = <η> vs. [e:] = <ει> < -εν(ς) or −εε-
[ɔ:] = <ω> vs. [o:] = <ου> < -ον(ς) or −εο-/ -οο-

Now, the tendency to open the long vowel inherited from Proto-Indo-European contradicts a drift attested in many Indo-European languages. According to this general tendency median long vowels tend to be realized more closed than their short correlates. This departure from an Indo-European tendency could result from the interference of a Pre-Hellenic substrate where the correlation between openness and length was entirely different from that of Indo-European. The fact that the Thessalian and Boeotian counterparts of [ɛ:] <η> and [ɔ:] <ω> were [e:] <ει> and [o:] <ου> shows that the correlation between openness and length shared by most Greek dialects was not kept in those Aeolic dialects[8]. However, in most ancient Greek dialects that correlation was felt quite clearly, as shown by the merging of the Indo-European-inherited [ē], that is, [ɛ:], and [ae:] < [a:] and even more obviously by the opening of [ɛ:] <η> in ā in Elean[9]. If the result of the shift of ā to η was phonemically identical with the etymological η and different from the compensatory lengthening of ε, there is no doubt about the open nature of the reflexes of Indo-European [e:] in most ancient Greek dialects and consequently in common Greek.

The correlation between openness and length as far as the median vowels [e] and [o] are concerned is probably the reflection of a structural interference exerted by a language where the phonemes [ē] and [ō] tended to be pronounced [ɛ:] and [ɔ:] respectively. This special open nature of the long median vowels may be due to the action of the Aegean substrate where the openness of [ɛ:] might have been the result of the palatalization of [a:] in a way that anticipated the Ionic shift of ā to η.

As far as the Ionic shift is concerned, a strictly internal explanation has been proposed[10]. According to this assumption, the palatalization of ā to η was allegedly the consequence of the appearance of a new ā as a result of the compensatory lengthening of α < -αν(ς) and of the contraction α + ε. However, this hypothesis is not very satisfactory since the appearance of a new ā is by no means limited to the Ionic dialects. Therefore, it is difficult to make a connection between the two

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[7] *Philomen Probert,* "Phonology" // A Companion to the Ancient Greek Language / *Egbert J. Bakker* (ed.). Malden, MA; Oxford: Wiley-Blackwell, 2010. P. 96–97.

[8] *Friedrich Bechtel,* Die griechischen Dialekte, 2nd edition. Berlin: Weidmannsche Verlagsbuchhandlung, 1963. Vol. I. P. 136; 218–220; *Carl D. Buck,* The Greek Dialects. Chicago; London: University of Chicago Press, 1955. P. 25, 27.

[9] *Bechtel,* Die griechischen Dialekte. Vol. III. P. 829; *Buck,* The Greek Dialects. P. 25.

[10] *Stephen Colvin,* A Historical Greek Reader: Mycenaean to the Koiné. Oxford; New York: Oxford University Press, 2007. P. 10.

phenomena, that is, the almost Pan-Hellenic creation of a secondary $\bar{a}$ on the one hand and the strictly Ionic-Attic shift from α to η on the other hand.

Interestingly enough the closing of [a:] is attested in Canaanite though along the range of the back vowels rather than the front vowels. In this Northwest Semitic language, almost every long [a:] was rounded in [o:]. If both shifts — the non-conditioned Ionic closing of $\bar{a}$ to η and the conditioned Canaanite shift from [a:] to [o:] — are to be ascribed to the same substratic influence, it could be that the non-Indo-European and non-Semitic language that interfered with both Ionic and Canaanite had a vowel system where the feature of vocalic length was compatible only with the median vowels but not with [a]. This language seems to have exerted a deep substratic influence on Ionic Greek where all the occurrences of inherited $\bar{a}$ were closed to η and a weaker substratic influence on Canaanite where the shift from [a:] to [o:] was restricted to certain conditions. In spite of these differences, it is tempting to assume that a common substrate was responsible for three shifts:

1) the reinterpretation of the Indo-European-inherited [e:] and [o:] as open long vowels as a result of the adoption of common Greek by people speaking a language where the feature of length was compatible only with open median vowels (probably as a result of a previous shift from [a:] to [ae:] and [ɛ:] and of a velar [a:] to [ɔ:]). This feature seems to have been felt less in Thessalian and Boeotian, probably because of their belonging to the Aeolic dialect considered by some scholars a branch of Achaean in Mycenaean times[11]. To be sure, Lesbian seems to have behaved differently, since it was influenced by its contact with Ionic, a dialect that had manifold impact on the crystallization of Lesbian as a special dialect within the Aeolic group.

The Thessalian and Boeotian treatment of [e:] and [o:] is sufficient reason for believing that the opening of the Indo-European-inherited [e:] and [o:] was not a Panhellenic feature already extant in Common Greek, but rather a feature confined to a certain area in spite of its extension to an overwhelming majority of dialects. It is likely that at the stage of Mycenaean Greek, a difference was already felt in the realization of the long median vowels. Whereas part of the Mycenaean world did share the trend toward the opening of the Indo-European-inherited [e:]

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[11] On the relationship between Mycenaean Greek and (Proto-) Aeolic, see the manifold views expressed by *Ernst Risch.* La position du dialecte mycénien // Études mycéniennes (Actes du Colloque International sur les textes mycéniens, Gif-sur-Yvette, 3–7 avril 1956) / *Michel Lejeune* (ed.). Paris: CNRS, 1956. P. 167–172; *Vladimir Georgiev.* Mycenaean among the Other Greek Dialects // Mycenaean Studies (Proceedings of Third International Colloquium for Mycenaean Studies Held at 'Wingspread', 4–8 September 1961) / *Emmett L. Bennett, Jr.* (ed.). Madison: The University of Wisconsin Press, 1964. P. 125–139; Mycénien et homérique: le problème du digamma // Proceedings of the Cambridge Colloquium on Mycenaean Studies / *Leonard R. Palmer* and *John Chadwick* (eds.). Cambridge: The University Press, 1966. P. 104–124; *C. J. Ruijgh.* Études du grec mycénien. Amsterdam: Adolf M. Hakkert, 1967. P. 35–41; *Antonín Bartoněk,* Greek Dialectology after the Decipherment of Linear B // Studia Mycenaea: Proceedings of the Mycenaean Symposium / *Antonín Bartoněk* (ed.). Brno: Universita J. E. Purkyně,1968. P. 37–51.

and [o:], other parts therein — later continued by Aeolic, and more specifically by Thessalian and Boeotian — did not display this feature and kept realizing the [e:] and [o:] as closed median vowels.

2) The Ionic shift from $\bar{a}$ to η can be considered a prolongation of the hypothetic Prehellenic shift from [a:] to [ae:] and [ɛ:]. The fact that Ionic partially reverberated this substratic trend indicates that the epicenter of the substratic influence must have been related to the shores of the Aegean where the various Ionic dialects and the Attic developed in post-Mycenaean times.

3) The possibility of ascribing the Canaanite shift from [a:] to [o:] to the same substratic or areal influence that was at work in the Ionic shift from [a:] to [ɛ:] is given additional credence by the fact that this process seems to have started already in the fourteenth century BCE, as evidenced by the Tel al-Amarna tablets[12].

1.2. Consonants

Another feature shared by both Archaic Greek and Canaanite is the dropping of *digamma* in Ionic-Attic and Lesbian[13] and in some Doric dialects of the Aegean (Thera, Rhodes, Cos). The fact that Cyprian did not share in this trend may be ascribed to its belonging to the Arcado-Cyprian dialectal group that is far more conservative than the highly innovative Ionic group.

Some data seem to contradict the assumption of a correlation between the substratic impact of the Prehellenic language and the disappearing of *digamma*. If we suppose that from a graphemic vantage-point there was a good deal of continuity between linear A and linear B, then the language represented by linear A certainly had a phoneme [w], as shown by the existence of an almost complete series <wa>, <we>, <wi>, <wo> in linear B, not to speak of the syllabograms with an initial consonantal cluster: <nwa>; <dwe>; <dwo>; <twa>/ <two>; <swa>; <swe>; <swi>; <twe>[14]. Furthermore, the syllabograms <wa> (54) and <wi> (40) of linear B are found with an identical value in linear A[15].

The dropping of [w] might not be due to the substratic influence exerted by the Prehellenic Aegean language. Nevertheless, it is beyond doubt that in this evolution the aforementioned Eastern dialects of Archaic Greek and Canaanite are united by an isogloss that consists in the dropping of the bilabial semi-consonant

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[12] *Anson F. Rainey,* Canaanite in the Amarna Tablets: A Linguistic Analysis of the Mixed Dialect Used by the Scribes from Canaan. Leiden: E. J. Brill, 1996. Vol. I. P. 48.

[13] *Buck,* The Greek Dialects. P. 46; *Albert Thumb,* Handbuch der griechischen Dialekte, 2nd edn. Heidelberg: Carl Winter, 1959. Vol. II. P. 93, 261–262.

[14] On the representation of [w] in linear B, see *Carlo Gallavotti,* Le grafie del wau nella scrittura micenea // Mycenaean Studies (Proceedings of Third International Colloquium for Mycenaean Studies Held at 'Wingspread', 4–8 September 1961) / *Emmett L. Bennett, Jr.* (ed.), Madison: The University of Wisconsin Press, 1964. P. 57–65.

[15] *David W. Packard,* Minoan Linear A. Berkeley; Los Angeles; London: University of California Press, 1974. P. 96.

[w] in certain positions within the word. Moreover, it seems that in Mycenaean itself, there were already some tendencies to drop [w] in certain positions[16]. Those isolated phenomena may have been the prodromes of a tendency that asserted itself in post-Mycenaean times in the dialects spoken in an area that happened to be in contact with some representatives of Northwest Semitic. It should be noted that in Canaanite in general and in Phoenician in particular[17], [w] was a fragile phoneme, as shown by its disappearing in intervocalic position (e.g. Hebrew *qāwam > qām "he rose") and its shift to [j] at the beginning of the word (e.g. Hebrew *wayn > yayn "wine"; *wāted > yāted "peg"). Both phenomena are the result of a restriction in the distribution of [w] in intervocalic position with the difference that within the word, [w] was dropped altogether whereas at the beginning of the word, the need for word boundary probably precluded its complete dropping. However, it did not prevent [w] from shifting into [j].

As far as Greek is concerned, the dropping of *digamma* was felt more strongly and earlier in Ionic, that is, precisely the area where the shift ā to η took place in post-Mycenaean times. Curiously enough, in Canaanite itself, the disappearing of intervocalic [w] coexists with the shift that affected [a:]. We already mentioned the similarity between the Ionic-Attic shift from ā to η and the Canaanite shift from [a:] to [o:] and we ascribed it to the same substrate. Here, however, we can only state that two similar processes occurred in the area of contact between the easternmost edge of Archaic Greek and the westernmost fringe of Semitic. Even though the dropping of [w] is probably not connected with the Aegean substrate, it could nevertheless be considered the effect of a convergence process of two languages in contact in the same Eastern Mediterranean *Sprachbund*.

It is difficult to determine whether the epicenter of the dropping of intervocalic [w] was located in Greek or in Canaanite. We already overturned the assumption that a substratic influence could have been influential in this shift.

However, in another instance at least, there is little doubt that the innovation came from the Greek side. I refer to the Phoenician shift from [ʃ] to [s] that seems to have started in the fifth century BCE or even earlier[18]. It is likely to have started in Cyprus, a well-known point of contact between the Greeks and the Phoenician[19]. The unidirectionality of this influence is further confirmed by the fact that Greek never possessed a postalveolar fricative whereas this phoneme is well attested in all Semitic languages. The result of the contact between Archaic Greek and Phoenician, the northwest outpost of Canaanite, was a singular lisping that consisted in pronouncing every *shin* as *sin*. It is important to note that this Phoenician shift from

[16] *Vladimir Georgiev,* Mycénien et homérique: le problème du digamma // Proceedings of the Cambridge Colloquium on Mycenaean Studies / *Leonard R. Palmer* and *John Chadwick* (eds.). Cambridge: The University Press, 1966. P. 104–124.

[17] *Stanislas Segert,* A Grammar of Phoenician and Punic. Munich: C. H. Beck, 1976. P. 71–72.

[18] *Charles R. Krahmalkov,* A Phoenician-Punic Grammar. Leiden; Boston; Cologne: Brill, 2001. P. 25.

[19] *Segert,* A Grammar of Phoenician and Punic. P. 64.

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[ʃ] to [s] has nothing to do with the Shibboleth episode related in Judges 12:6. What was at stake there was most probably a contrast between the interdental [θ] and [ʃ][20].

Another possible influence of Greek on Phoenician is the realization of the affricate [dz] as [zd]. Whatever the original value of the letter *zain* in Proto-Canaanite — a spirant [z] or an affricate [dz] — , it seems to have had the value of [zd] in Phoenician[21], probably as a result of the metathesis of the two elements of the affricate. A similar reversal occurred in Archaic Greek where the original affricate [dz] represented by <ζ> was realized [zd], as shown by the occasional spelling <σδ> that was even retained in the textual tradition of Lesbian lyric and as confirmed by the use of <ζ> in order to represent the sequence <σδ> in Ἀθήναζε < Ἀθήνας-δε "to Athens". Since the metathesis [dz] > [zd] is attested only in Phoenician, it is tempting to ascribe it to contact with Archaic Greek where the same metathesis seems to characterize all the dialects since the post-Mycenaean time at least (in Mycenaean Greek, the original value [dz] is likely to have been retained)[22].

2. Two possible manifestations of Semitic influences in the field of Greek morphology

2.1. Nominal morphology: syncretism in the declension system

A possible manifestation of the impact resulting from the contact of Archaic Greek with Semitic languages is the drastic reduction of the eight cases of Proto-Indo-European or of the six cases of Mycenaean Greek[23] to only five in Archaic and Classical Greek as a result of a syncretistic process that is not necessarily attributable to strictly internal factors. In our opinion, the contact of Indo-European languages with non-Indo-European languages was responsible for the preservation of a rich case system or conversely to its reduction or even disappearance.

A valuable touchstone that may help evaluate the amplitude of the commotion provoked by the encounter between Indo-European and Semitic languages is

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[20] *Ephraim A. Speiser,* The Shibboleth Incident (Judges 12:6) // Bulletin of the American Schools of Oriental Research. 1942. Vol. 85. P. 10–13 (= Oriental and Biblical Studies: Collected Writings of E. A. Speiser / *J. J. Finkelstein* and *Moshe Greenberg* (ed.). Philadelphia: University of Pennsylvania Press, 1967. P. 143–150); *Ian Young,* Diversity in Pre-Exilic Hebrew. Tübingen: Mohr-Siebeck, 1993. P. 188.

[21] *Segert,* A Grammar of Phoenician and Punic. P. 113–114; *Krahmalkov,* A Phoenician-Punic Grammar. P. 21–22.

[22] *Michel Lejeune,* Les sifflantes fortes du mycénien // Lejeune. Mémoires de philologie mycénienne, deuxième série (1958–1963). Rome: Edizioni dell'Ateneo, 1971. P. 132–133; Phonétique historique du mycénien et du grec ancien, 1972. P. 113.

[23] For an interpretation of the Mycenaean case system, see *Oswald Szemerényi,* The development of the −o-/ -ā- stems in the Light of the Mycenaean Evidence // Proceedings of the Cambridge Colloquium on Mycenaean Studies / *Leonard R. Palmer* and *John Chadwick* (eds.). Cambridge: The University Press, 1966. P. 222–225; *Ivo Hajnal,* Studien zum mykenischen Kasussystem. Berlin; New York: Walter de Gruyter, 1995.

the process of erosion that affected nominal declension in other Indo-European languages in contact with allogeneous systems. The most striking parallel is provided by the Indo-Iranian branch. Whereas Middle Indo-Aryan languages still preserve a wide range of cases in spite of the syncretism between genitive and dative as well as between instrumental and ablative, Middle Persian already reduced its case system to an opposition between *casus rectus* and *obliquus*, like in Modern Indo-Aryan languages where the reduction of the range of cases may be the result of internal factors, as in the evolution of ancient to modern Greek. However, one should also consider attributing those relatively recent phenomena to the contact of Modern Indo-Aryan languages with Farsi, especially as far as Hindustani is concerned.

To be sure, other Middle Iranian languages like Sogdian and Khotanese preserved a more articulated nominal declension. However, this conservatism may be ascribed to the relative isolation of those languages relegated to a peripheral zone where the dynamics of linguistic change and grammatical erosion may have been somewhat hampered. More specifically, those Iranian languages of Central Asia were not in contact with Semitic languages excluding the occasional encounter on the Silk Road of Sogdian and Aramaic during the first centuries of the Christian era.

In order to properly evaluate the impact of language contact on the preservation vs. disappearance of nominal declension, one has to think of an Iranian language like Ossetian that has no less than eight cases. This exceptional resistance to the structural drift that consists in the gradual decay of the case system is probably due to the contact of Ossetian with Caucasian languages that are characterized by a strong declension system (though agglutinative rather than flexional).

After this excursus through a cognate branch of the Indo-European language family, let us apply the causality of language contact in order to understand the erosion that affected the Greek declension system since the earliest contacts between Greek and Northwest Semitic. The first step in the reduction occurred at the stage of Mycenaean Greek, probably the result of contact with the Proto-Aegean substrate. However, the next step in the reduction occurred when Archaic Greek was already exposed to contact with Phoenician, a language that had almost dropped the last remnants of the Proto-Semitic-inherited declension[24].

During the transition from Mycenaean to Archaic Greek two concrete cases (instrumental and locative) merged with the dative, a more abstract case. The system thus obtained was obviously not identical with the Proto-Semitic three-fold system consisting only in nominative, accusative and genitive. However, we may perceive in the simplification of the declension system toward a more abstract set of morphological oppositions the result of a convergence process that reached its peak with the loss of the dative during the transition from the Koiné to medieval Demotic Greek[25].

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[24] *Krahmalkov,* A Phoenician-Punic Grammar. P. 123.
[25] *David Holton* and *Io Manolessou,* Medieval and Early Modern Greek // A Companion to the Ancient Greek Language / *Bakker* (ed.). P. 546–547.

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The gradual reduction of the gamut of cases during the various stages of the history of Greek led to a situation where the final result (a three-fold system) is identical with the Proto-Semitic system that was no longer actual at the time of contact between Archaic Greek and Phoenician.

2.2. Verbal morphology: A Semitic-like combination of Indo-European-inherited morphemes?

One of the most vexing quandaries of the historical morphology of Greek is the question of the origin of the passive aoriste morpheme -θ- that was combined with the ending -η- in order to create the very productive infix –θη-. Chantraine suggested two possible Indo-European etymologies for this strange morpheme, but he stressed that neither was really demonstrable[26]. I would like to propose a hypothesis that attributes the use of this mysterious morpheme to the accusional abolition of the boundaries between the nominal and the verbal systems.

By itself, the suffix –η- was sufficient to express the value of the aorist intransitive, the passive aorist being one of the specifications of this basic intransitive value. Thus the adding of the infix -θ- may be interpreted as a way of expliciting the special passive value of the aorist. According to Émile Benveniste[27], the origin of this redundant agglutinative morpheme is identical with the nominal suffix -θ- < Proto-Indo-European *–dh-. In his turn, Chantraine interpreted this morpheme as expressing an instrumental value or at least referring to a tool, especially when combined with -ρο-/ -ρᾱ — or with -λο- / -λᾱ -[28], as in βέρεθρον/ βάραθρον "abyss" derived from the root βερ- appearing in βιβρώσκω "to swallow"; κολυμβήθρα "swimming-place" derived from κολυμβάω "to swim"; γένεθλον/ γενέθλη "birth, descent" from the root γεν- of γίγνομαι "to come into being; to become".

Now, the adoption of -θ- in order to reinforce the stative-passive value of -η- is also an interesting way of crossing the boundaries between the nominal and the verbal systems. This blurring of the differences between parts of speech is something that is well known in Semitic languages where the preformants *m-* and *t-* are widely used in order to produce substantives (mainly with a resultative meaning). Those very same preformants are also very productive in the formation of the passive, precisely: e.g. the Arabic noun *maf'alu^n* formed with the same *m-* as the past participles *maf'ūlu^n, mufa''alu^n, mufā'alu^n*. To be sure, the participles are still part of the nominal system. However, the recursive use of the same morpheme in the nominal and verbal systems is beyond doubt in the case of the nouns preformed with the morpheme *t-* like *taf'īlu^n*. Indeed,

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[26] *Pierre Chantraine,* Morphologie historique du grec. Paris: Klincksieck, 1980. P. 167–170.

[27] *Émile Benveniste,* Origines de la formation des noms en indo-européen. Paris: Maisonneuve, 1984. P. 196–197.

[28] *Pierre Chantraine,* La Formation des noms en grec ancien. Paris: Champion, 1933. P. 372–375.

the morpheme *t-* reappears in the fifth, sixth and tenth form: *tafāʿala; iftaʿala; istafʿala* (Akkadian *iptaras*; Hebrew *hitpaʿʿel*; Aramaic *etpəʿel; etpaʿʿal; ettafʿal; eštafʿal*) not only in the participle, but even in the conjugated forms of the verb. In Akkadian, in Hebrew and in the sixth and tenth form of Arabic the morpheme *–t-* is used as an infix. Now, how should we consider the insertion of *–θ-* between the semantic base of the verb and the stative morpheme *–η-*? Isn't it a clear case of infixation, the result of which was the explicitation of the passive value of the verbal form? To be sure, the morphological implications of the infixation are different in Greek and in the various Semitic languages where *–t-* is used as a mark of passive or reflexive diathesis. However, the very principle of infixing a morpheme in order to confer a non-active value to the verb may be considered a creative imitation of Semitic verbal morphology.

To sum up, the infixation of a nominal morpheme in order to explicit or to mark a diathetic value may be considered a manifestation of the convergence process by dint of which some morphological practices that were usual in Semitic were sometimes adopted by Archaic Greek. The double dimension involved in this imitation of mechanisms characteristic of Semitic grammar — namely the crossing of the boundaries between noun and verb and the infixation with a diathetic value — is a clear example of the transtypological move that occurred in Greek during the transition from Mycenaean to Archaic Greek.

3. Syntactic calques

3.1. In the nominal microsyntagm

The contact with Northwest Semitic languages may be responsible for a major innovation of Greek with respect to its Indo-European background, or more precisely, of Archaic Greek with respect to Mycenaean. It is the developing of the article on the basis of the demonstrative element ὁ, ἡ, τό (< *so, *sā / to*) as a definite article[29]. This microsyntactic element was not really required by the internal structure of prehistoric Greek. I assume that this innovation was not motivated by internal factors and that it is rather the result of the protracted contact between Archaic Greek and Phoenician.

In Canaanite in general and in Phoenician in particular, the article *ha-* continuing a former *han* is well attested since 1000 BCE[30]. It is possible that this marking innovation of Canaanite was motivated by the need to compensate for the aforementioned loss of the declension ending. However, such motivation was irrelevant in Greek where the nominal declension has been preserved

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[29] On the move from the deictic value of ὁ, ἡ, τό to its use as an article, see *Antoine Meillet,* Aperçu d'une histoire de la langue grecque. 6ᵗʰ edn. Paris: Hachette, 1948. P. 179–185.

[30] *Segert,* A Grammar of Phoenician and Punic. P. 107–108; *Krahmalkov,* A Phoenician-Punic Grammar. P. 86–87.

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in spite of the significant syncretistic processes that reduced the range of cases from eight to five.

Nonetheless, an argument in favor of the assumption that the adoption of the article in Archaic Greek is the effect of the calque of a latent Semitic structure is provided by the redundant use of the article before the determined noun and the determining adjective when the former precedes the latter. This repetition is reminiscent of a similar constraint in Hebrew and Phoenician where the postponed adjective appears as an apposition rather than as a full-fledged epithet. The fact that in Greek this repetition did not occur when the determining adjective preceded the noun is probably because the word order determining + determined does not exist in the Northwest Semitic languages wherefrom the principle of putting an article before the noun was borrowed. Thus the adaptation of the article to an Indo-European-inherited word order was not followed by the apposition-like reiteration of the article that characterized the calque of a Semitic syntactic structure. Likewise, the fact that in Ancient Greek the article and the noun it determines can be separated by other words (e.g. ἐν τῇ νῦν Ἑλλάδι καλεομένη χωρῇ "in the land that is now called Hellas", Herodotus, *History*, "Clio", 1) may also be related to the inexistence of such a construction in Canaanite. As for the third option that consists in using the article before the sequence substantive + adjective, it was restricted to the nominal sentence in a way that can be considered the continuation of a latent Semitic structure. Indeed, such a sentence as ὁ πλοῦτος εὐρυσθενής "wide-reaching is the power of wealth"[31] is perfectly consonant with Hebrew as in: *wə-han-nᵃ῾arā ṯoḇat marʾeh məʾod* (Genesis 24:16) "And the damsel was very fair to look upon" (King James Version), literally, "and the damsel fair to look very". We deal with nominal sentences as a possible impact of Northwest Semitic influence on the syntax of Archaic Greek in the following section. Meanwhile, let us focus on the nominal microsyntagm.

Turning to the apposition-like structure article + substantive + article + substantive, we could add that the adoption of the article in Greek is tantamount to a technological transfer, which came, so to say, as a package deal. Indeed, the diffusion of an alternative structure within the nominal microsyntagm whereby the determined noun precedes the determining adjective is probably connected with this major innovation that consists in recycling a deictic (or the presentative *han* in Northwest Semitic) as a mere grammatical instrument.

As far as dating the creation of the Greek article is concerned, it seems that this innovation, motivated by contact with Phoenician, occurred earlier than we can deduce from the testimony of the Homeric language. In the Homeric *Kunstsprache*, the absence of the article may be due to the fact that the language reflected in the epic continues a more archaic linguistic tradition that may date back to Mycenaean times. It is worth noting that even in Biblical Hebrew, the poetic style is characterized by a relative scarcity in the use of the article *ha-/ hā-*.

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[31] *Pindar,* Pythica V, 1 / Trans. Ernest Myers.

At a lower layer of Archaic Greek diglossia, the technological transfer that consists in using an article before the noun and its adjective or before the conjunct composed by the noun and adjective, may have become the norm earlier than it appears in the literary testimonies of the language.

3.2. In the verbal syntagm

Another syntactic innovation that may be ascribed to early contact between Archaic Greek and Northwest Semitic languages is the significant use of nominal sentences, that is, sentences where the copula is ø[32]. Much research has been done on the nominal sentence in Archaic and Classical Greek[33]. Moreover, prominent Indo-Europeanists like Meillet and Benveniste took for granted the existence of the nominal sentence in Proto-Indo-European and considered the Greek data a simple prolongation of Indo-European structure[34]. However, none of those linguists has ever suggested that the proliferation of nominal sentences in Archaic Greek (in Homer especially)[35] could have been the result of the influence exerted by Phoenician.

The convergence of Archaic Greek syntax toward a Semitic model is all the more likely in that the reverse process of the Indo-Europeanization of the syntax in some Semitic languages pertains precisely to the creation of a copula that is supposed to calque the almost compulsory use of the copula in many Indo-European languages. Dueto its lasting contact with ancient and middle Persian, Babylonian Aramaic created a copula *nihū*, *nihī, ninhū, ninhī* that is structurally equivalent to Middle Persian *ast*[36]. If Aramaic syntax was Indo-Europeanized to the extent that it occasionally adopted the copula, why not assume that conversely, Archaic Greek syntax was Semiticized to the extent that it could very frequently renounce the copula altogether?

The process by dint of which a language gradually loses its copula under the influence of a neighboring language is well attested in other places, other contexts. Let us take for example the disappearing copula in the present that affected Russian, probably under the influence of a Finno-Ugric substrate[37].

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[32] On the nominal sentence in Semitic and other languages, see *David Cohen,* La phrase nominale et l'évolution du système verbal en sémitique: Études de syntaxe historique. Leuven; Paris: Peeters, 1984. P. 1–57.

[33] *Charles Guiraud,* La phrase nominale en grec d'Homère à Euripide. Paris: Klincksieck, 1962; *Nicole Lanérès,* La phrase nominale en grec: nouvelle approche // Bulletin de la Société Linguistique de Paris. 1994. T. LXXXIX. Fasc. 1. P. 229–254.

[34] *Antoine Meillet*, La phrase nominale en indo-européen // Mémoires de la Société de Linguistique. 1906. No. 14. P. 1–26; *Émile Benveniste,* The Nominal Sentence // Problems in General Linguistics / Trans. Mary E. Meek, Coral Gables. University of Miami Press, 1971. P. 131–144.

[35] *Pierre Chantraine,* Grammaire homérique. Paris: Klincksieck, 1963. Vol. II. P. 1–5.

[36] *Geoffrey Khan,* The Morphology of Babylonian Jewish Aramaic // Morphologies of Asia and Africa / *Alan S. Kaye* (ed.), Winona Lake, IN: Eisenbrauns, 2007. Vol. I. P. 109.

[37] *Wolfgang Veenker,* Die Frage des finnougrischen Substrats in der russischen Sprache. Bloomington: Indiana University, 1967. P. 109–117; *René L'Hermitte*, La phrase nominale

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Here, however, we should make two distinctions between the copula-zero-sentences in Northwest Semitic and the equivalent constructions in Ancient Greek. The first one concerns the facultative status of this construction in Greek. Whatever the exact status of the nominal sentence was in Ancient Greek, it could always be replaced by a verbal construction whereas in Northwest Semitic, the verbal construction in the present does not exist at all. The second point is that in most of the nominal sentences found in Archaic Greek (in Homer especially), the particles seem to compensate the absence of the copula in order to mark the boundary between subject and non-verbal predicate. Only in later periods, when Greek was exposed to direct contact with Hebrew and Aramaic in the Hellenistic and Roman times, do we face the blatant impact of a Semitic construction on the use of the nominal sentence. Let us compare for instance the three following formulations:

Ἀγαθὸν ὄνομα ὑπὲρ ἔλαιον ἀγαθόν, a literal translation of *ṭōḇ šem miš- šemen ṭōḇ* "A good name is better than precious ointment" (KJV) (Ecclesiastes 7:1).

μακάριοι οἱ πτωχοὶ τῷ πνεύματι "Blessed are the poor in spirit" (KJV) (Matthew 5:3), a formulation obviously influenced by Psalms 1:1: μακάριος ἀνήρ "Blessed is the man" (KJV).

ἄριστον μὲν ὕδωρ "Best is water of all" (Pindar, *Olympiaca* I, 1, trans. Ernest Myers) where the use of the particle μέν functions as a buffer between the rhematized predicate and the thematized subject.

The two first formulations are clearly influenced by the Hebrew text of the Bible on the one hand and by a latent Semitic (Hebrew or Aramaic) text on the other. The third one, however, appears more genuinely Greek inasmuch as the pause between the predicate and the subject is explicitly expressed by the particle μέν.

Nonetheless, we could consider the almost systematic resort to a particle in order to compensate the absence of the copula the reaction of the system to the irruption of an alien construction. In Polish, a language that was also exposed to partial loss of the copula, we see that the deictic pronoun *to* can advantageously compete with the verbal copula *jest*[38]. The use of *to* as a substitute for *jest* reveals that in that language, the replacement of the verbal sentence by a nominal one was not fully completed: first of all, the verbal sentences in the present were not totally erased as they were in Eastern Slavonic languages; second, the ø-copula situation was never reached in that language. By the same token, it can be assumed that in Archaic Greek, the convergence toward the Northwest Semitic pattern was not totally completed. As in Polish, the constructions with a verbal copula were never erased, quite the contrary. Moreover, the frequent use of the particle, probably in order to create a prosodic pause between the subject and the predicate,[39] can

en russe. Paris: Publications de la Sorbonne/ Institut d'Études Slaves, 1978. P. 302–310. On similar Finno-Ugric influences on Lithuanian, see *Robert Gauthiot,* La phrase nominale en finno-ougrien // Mémoires de la Société de Linguistique. 1908–1909. Vol. XV. P. 225–226.

[38] *Stanisław Szober,* Gramatyka ięzyka polskiego. 6th edn. Warsaw: Państwowe Wydawnictwo Naukowe, 1963. P. 302–303.

[39] See *Lanérès,* La phrase nominale en grec. P. 236–239.

be considered an equivalent of the use of *to* in Polish. Both Polish and Ancient Greek only partially converged toward the typological pattern represented by the neighboring languages. However, the parallelism between the two cases of partial convergence is not perfect. Polish and the Eastern Slavonic languages belong to a language family that reacted with different intensity to the impact of the innovation, the origin and epicenter of which is probably to be sought in contact with Finno-Ugric languages. It is even likely that the uncompleted alignment of Polish toward the ø-copula structure is the result of the contact between this Western Slavonic language and Byelorussian rather than the consequence of direct contact between Polish and Finno-Ugric. Not unlike Polish, Greek seems to waver between the nominal and verbal sentences, as if it were on the verge of performing a transtypological mutation toward the syntactical patterns of Northwest Semitic languages. However, the move was not completed and Greek remained a language where the verbal sentence is still more important than the nominal one.

Conclusion

The phenomena examined above deal with a group of isoglosses with Northwest Semitic. Taken individually, each of those isoglosses of Ancient Greek with Northwest Semitic (and with Phoenician in particular) is unlikely to constitute a conclusive argument in support of our assumption that Northwest Semitic languages exerted a deep structural influence on the development of Archaic Greek. However, taken as a whole they suggest a remarkable convergence of Archaic Greek toward the language spoken on the Syro-Phoenician shore of the Eastern Mediterranean and in Cyprus. Some of the contact-induced innovations (the shift from of ᾱ to η and the proliferation of nominal sentences) are confined to one dialectal area (Ionian-Attic); other changes are Pan-Hellenic (the syncretism in the declination system; the use of the infix –θ- as a way of enhancing the morpheme –η- of the passive aorist; the use of the article, its repetition before the substantive and the adjective; the adoption of a determined + determining structure).

Among the aforementioned changes, one (the shift of ᾱ to η) is not directly connected to the Semitic adstrate. However, it is very likely that the same substratic factor was responsible for both the shift of ᾱ to η and the Canaanite shift from [aː] to [oː]. The fact that Eastern Greek and Canaanite were influenced by the same non-Indo-European and non-Semitic substrate is an important consideration in the convergence process that took place between them.

Turning to the direct contact between Archaic Greek and Canaanite (Phoenician), it is worth noting that the impact of Phoenician on Greek was more profound and comprehensive than vice versa. Among the Indo-European languages, only the Anatolian and the Iranian language families can claim comparable exposure to the structural influences exerted by Semitic languages. Moreover, the Northwest Semitic influence on the development of the Greek linguistic system occurred at a crucial period in the history of the language, that

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is, during the transitional period between Mycenaean and Archaic Greek. It seems that the adoption of the Phoenician alphabet in around 800 BCE was merely the epiphenomenon that disclosed the more essential impact of Phoenician on the deep structures of Archaic Greek. Since the pressure of Northwest Semitic probably began during the Dark Ages of Greek history, that is, during the transitional period from Late Mycenaean to Archaic Greece (1200–800 BCE), it is likely that the borrowing of the alphabet, which is the most visible contact-induced innovation, was only the culmination of a long-running process that had started earlier. The task of the linguist is to dig into the deep structures of the language in order to unveil the impacts of contact with Phoenician on the grammatical system and not only on the external representation of the language.

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Northwest Semitic Structural Influences on Archaic Greek: a Reassessment

Abstract: In this paper, I examine some features of Archaic Greek that constitute an innovation with respect to Mycenaean Greek in an attempt to ascribe them to the impact of the intense contact with Northwest Semitic languages during the period of the Dark Ages, an epoch when the influence exerted by the Phoenician world was also felt outside the system of the language.

As far as the language structure of Archaic Greek is concerned, it is possible to point at a remarkable convergence of Archaic Greek toward the language spoken on the Syro-Phoenician shore of the Eastern Mediterranean or in Cyprus. It is worth noting that the impact of Phoenician on Greek was far deeper and much more comprehensive than the other way round. Among the Indo-European languages, only the Anatolian and the Iranian language families can pretend to a comparable exposition to the structural influences exerted by Semitic languages. Moreover, the Northwest Semitic influence on the development of Greek linguistic system occurred in a crucial period in the history of the language, that is, during the transitional period between Mycenaean and Archaic Greek. It seems that the adoption of the Phoenician alphabet around 800 BCE was only the epiphenomenon that reveals a much more essential impact of Phoenician on the deep structures of Archaic Greek. Since this pressure of Northwest Semitic most probably began during the Dark Ages of Greek history, that is, during the transitional period from Late Mycenaean to Archaic Greece (1200-800 BCE), it is likely that the borrowing of the alphabet, which is the most visible contact-induced innovations, was only the consecration of a long-running process that occurred beforehand. In any case, the task of the linguist is to dig into the deep structures of the language in order to unveil the implication of the contact with Phoenician on the grammatical system and not only on the external representation of the language.

Bibliograghy

Cyril Aslanov, Emprunt enthousiaste et emprunt reticent: essai de typologie de differentes attitudes devant l'emprunt lexical a travers l'exemple du grec et du japonais / Meta. Translators' Journal. 1995. Vol. 40. No. 4. P. 540–547.

Antonin Bartoněk, Greek Dialectology after the Decipherment of Linear B // Studia Mycenaea: Proceedings of the Mycenaean Symposium / Antonin Bartoněk (ed.). Brno: Universita J. E. Purkyně,1968. P. 37–51.

Friedrich Bechtel, Die griechischen Dialekte, 2nd edition. Berlin: Weidmannsche Verlagsbuchhandlung, 1963. Vols. I, III.

Emile Benveniste, The Nominal Sentence // Problems in General Linguistics / Trans. Mary E. Meek, Coral Gables. University of Miami Press, 1971.

Emile Benveniste, Origines de la formation des noms en indo-europeen. Paris: Maisonneuve, 1984.

Carl D. Buck, The Greek Dialects. Chicago; London: University of Chicago Press, 1955.

Pierre Chantraine, La Formation des noms en grec ancien. Paris: Champion, 1933.

Pierre Chantraine, Grammaire homerique. Paris: Klincksieck, 1963. Vol. II.

Pierre Chantraine, Morphologie historique du grec. Paris: Klincksieck, 1980.

Frans van Coetsem, A General and Unified Theory of the Transmission Process in Language Contact. Heidelberg: Carl Winter Universitatsverlag, 2000.

David Cohen, La phrase nominale et l'evolution du systeme verbal en semitique: Etudes de syntaxe historique. Leuven; Paris: Peeters, 1984.

Stephen Colvin, A Historical Greek Reader: Mycenaean to the Koine. Oxford; New York: Oxford University Press, 2007.

Giulio M. Facchetti, Appunti di morfologia etrusca con un'appendice sulla questione delle affinita genetiche dell'etrusco. Florence: Leo S. Olschki, 2002.

Edzard J. Furnee, Die wichtigsten konsonantischen Erscheinungen des Vorgriechischen. The Hague; Paris: Mouton, 1972.

Carlo Gallavotti, Le grafie del wau nella scrittura micenea // Mycenaean Studies (Proceedings of Third International Colloquium for Mycenaean Studies Held at 'Wingspread', 4–8 September 1961) / Emmett L. Bennett, Jr. (ed.), Madison: The University of Wisconsin Press, 1964. P. 57–65.

Giovanni Garbini, I filistei : gli antagonisti di Israele. Milan: Rusconi, 1997.

Robert Gauthiot, La phrase nominale en finno-ougrien // Memoires de la Societe de Linguistique. 1908–1909. Vol. XV. P. 225–226.

Vladimir Georgiev, Mycenaean among the Other Greek Dialects // Mycenaean Studies (Proceedings of Third International Colloquium for Mycenaean Studies Held at 'Wingspread', 4–8 September 1961) / Emmett L. Bennett, Jr. (ed.). Madison: The University of Wisconsin Press, 1964. P. 125–139.

Vladimir Georgiev, Mycenien et homerique: le probleme du digamma // Proceedings of the Cambridge Colloquium on Mycenaean Studies / Leonard R. Palmer and John Chadwick (eds.). Cambridge: The University Press, 1966. P. 104–124.

Charles Guiraud, La phrase nominale en grec d'Homere a Euripide. Paris: Klincksieck, 1962.

Ivo Hajnal, Studien zum mykenischen Kasussystem. Berlin; New York: Walter de Gruyter, 1995.

Rene L'Hermitte, La phrase nominale en russe. Paris: Publications de la Sorbonne/ Institut d'Etudes Slaves, 1978. P. 302–310.

Geoffrey Khan, The Morphology of Babylonian Jewish Aramaic // Morphologies of Asia and Africa / Alan S. Kaye (ed.), Winona Lake, IN: Eisenbrauns, 2007. Vol. I.

Cyril Aslanov, The Hebrew University of Jerusalem

Charles R. Krahmalkov, A Phoenician-Punic Grammar. Leiden; Boston; Cologne: Brill, 2001.

Nicole Laneres, La phrase nominale en grec: nouvelle approche // Bulletin de la Societe Linguistique de Paris. 1994. T. LXXXIX. Fasc. 1. P. 229–254.

Michel Lejeune, Les sifflantes fortes du mycenien // Lejeune. Memoires de philology mycenienne, deuxieme serie (1958–1963). Rome: Edizioni dell'Ateneo, 1971.

Michel Lejeune, Phonetique historique du grec ancien et du mycenien. Paris: Klincksieck, 1972.

Heinrich Lewy, Die semitischen Fremdworter im Griechischen. Berlin, 1895 (repr. Hildesheim-New York, 1970).

Emilia Masson, Recherches sur les plus anciens emprunts semitiques en grec. Paris: Klincksieck, 1967.

Antoine Meillet, La phrase nominale en indo-europeen // Memoires de la Societe de Linguistique. 1906. No. 14. P. 1–26.

Antoine Meillet, Apercu d'une histoire de la langue grecque. 6th edn. Paris: Hachette, 1948.

David W. Packard, Minoan Linear A. Berkeley; Los Angeles; London: University of California Press, 1974.

Philomen Probert, "Phonology" // A Companion to the Ancient Greek Language / Egbert J. Bakker (ed.). Malden, MA; Oxford: Wiley-Blackwell, 2010.

Anson F. Rainey, Canaanite in the Amarna Tablets: A Linguistic Analysis of the Mixed Dialect Used by the Scribes from Canaan. Leiden: E. J. Brill, 1996. Vol. I.

Ernst Risch, La position du dialecte mycenien // Etudes myceniennes (Actes du Colloque International sur les textes myceniens, Gif-sur-Yvette, 3–7 avril 1956) / Michel Lejeune (ed.). Paris: CNRS, 1956. P. 167–172.

C. J. Ruijgh, Etudes du grec mycenien. Amsterdam: Adolf M. Hakkert, 1967.

Stanislas Segert, A Grammar of Phoenician and Punic. Munich: C. H. Beck, 1976.

Ephraim A. Speiser, The Shibboleth Incident (Judges 12:6) // Bulletin of the American Schools of Oriental Research. 1942. Vol. 85. P. 10–13 (= Oriental and Biblical Studies: Collected Writings of E. A. Speiser / J. J. Finkelstein and Moshe Greenberg (ed.). Philadelphia: University of Pennsylvania Press, 1967. P. 143–150).

Oswald Szemerenyi, The development of the –o-/ -ā- stems in the Light of the Mycenaean Evidence // Proceedings of the Cambridge Colloquium on Mycenaean Studies / Leonard R. Palmer and John Chadwick (eds.). Cambridge: The University Press, 1966. P. 222–225.

Stanisław Szober, Gramatyka ięzyka polskiego. 6th edn. Warsaw: Państwowe Wydawnictwo Naukowe, 1963.

Albert Thumb, Handbuch der griechischen Dialekte, 2nd edn. Heidelberg: Carl Winter, 1959. Vol. II.

Wolfgang Veenker, Die Frage des finnougrischen Substrats in der russischen Sprache. Bloomington: Indiana University, 1967.

Ian Young, Diversity in Pre-Exilic Hebrew. Tubingen: Mohr-Siebeck, 1993.